E/ECE/324
E/ECE/TRANS/505/Rev.1/Add.47/Rev.1/Amend.3

25 February 2000

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM TECHNICAL PRESCRIPTIONS FOR WHEELED VEHICLES, EQUIPMENT AND PARTS WHICH CAN BE FITTED AND/OR BE USED ON WHEELED VEHICLES AND THE CONDITIONS FOR RECIPROCAL RECOGNITION OF APPROVALS GRANTED ON THE BASIS OF THESE PRESCRIPTIONS */

(Revision 2, including the amendments entered into force on 16 October 1995)

Addendum 47: Regulation No. 48

Revision 1 - Amendment 3

Incorporating:

02 series of amendments - Date of entry into force: 27 February 1999
Supplement 1 to the 02 series of amendments - Date of entry into force: 18 November 1999

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO THE INSTALLATION OF LIGHTING AND LIGHT-SIGNALLING DEVICES

UNITED NATIONS

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*/ Former title of the Agreement:

Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, done at Geneva on 20 March 1958.

GE.00- 20639

Paragraph 3.5., should be deleted.

Paragraph 4.2., amend to read:

"... (at present 02, corresponding to the 02 series of amendments) shall indicate the series of amendments ...."

Paragraph 4.4.1., footnote 3/, amend to read:

"3/ ..., 32 for Latvia, 33 (vacant), 34 for Bulgaria, 35-36 (vacant), 37 for Turkey, 38-39 (vacant), 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Community (Approvals are granted by its Member States using their respective ECE symbol) and 43 for Japan. Subsequent numbers ...."

Paragraph 5.9., amend to read:

"5.9. In the absence of specific instructions, no lamps other than direction-indicator lamps, the vehicle-hazard warning signal and amber side-marker lamps complying with paragraph 6.18.7. below, shall be flashing lamps."

Paragraph 5.11., amend to read:

"..... reciprocally incorporated with said lamps, as parking lamps and when side-marker lamps are permitted to flash."

Paragraph 6.2.4.1., amend to read:

"... of the vehicle.
The inner edges of the apparent surfaces in the direction of the reference axes shall be not less than 600 mm apart. This does not apply, however, for M_1 category vehicles; for all other categories of motor vehicles this distance may be reduced to 400 mm where the overall width of the vehicle is less than 1,300 mm."

Paragraph 6.3.4.2., amend to read:

"6.3.4.2. In height:

minimum:	Not less than 250 mm above the ground.
maximum:	For M_1 category vehicles not more than 800 mm above the ground; For all other categories of vehicles no maximum height.

However, no point on the apparent surface in the direction of ...."

Paragraph 6.4.4.2., amend to read:

"6.4.4.2. In height: For M_1 category vehicles no special requirement. For all other categories of vehicles not less than 250 mm nor more than 1,200 mm above the ground."

Paragraph 6.5.4.2.1., amend to read:

"6.5.4.2.1. The height of the light-emitting surface of the side direction-indicator lamps of categories 5 or 6 must not be:
less than: 350 mm for M_1 category of vehicles, and 500 mm for all other categories of vehicles, both measured from the lowest point; and
more than: 1,500 mm, measured from the highest point."

Paragraph 6.5.4.3., amend to read:

"... shall not exceed 1,800 mm. However, for M_1 category vehicles, and for all other categories of vehicles if the structure of the vehicle makes it impossible to comply ...."

Paragraph 6.5.5.1., note (*) below the figure, amend to read:

"(*) The value of 5° given for the dead angle of visibility to the rear of the side direction-indicator is an upper limit d ≤ 1.80 m (for M_1 category vehicles d ≤ 2.50 m)"

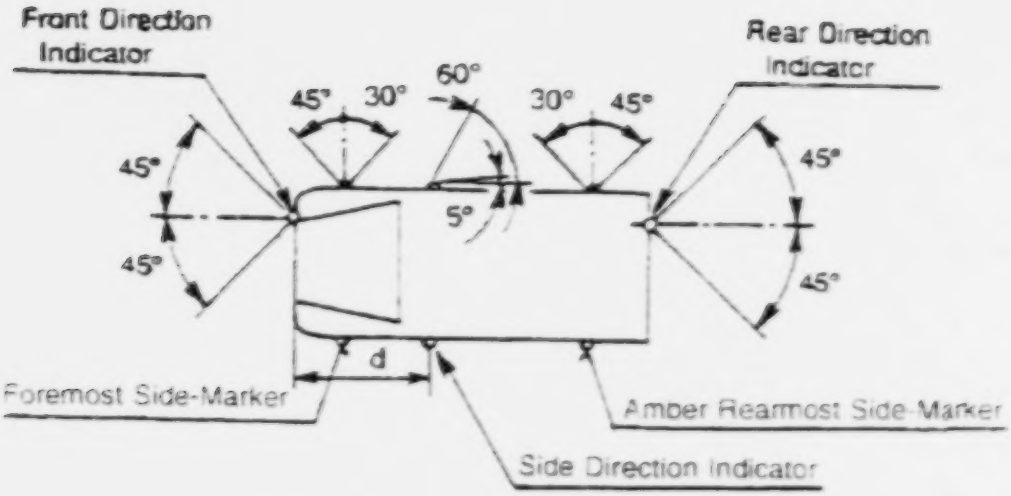
Paragraph 6.5.5., related to Direction Indicator Lamp, amend to read:

"6.5.5. Geometric visibility

6.5.5.1. (All words, figures, and notes presently in paragraph 6.5.5. would remain and be included here);

6.5.5.2. or, at the discretion of the manufacturer, for M_1 category vehicles (**):

Front and rear direction-indicator lamps, as well as side-marker lamps
Horizontal angles see figure below:



(**) The value of 5° given for the dead angle of visibility to the rear of the side direction-indicator is an upper limit

$$d \leq 2.50 \text{ m}$$

Vertical angles: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5° if the lamps are less than 750 mm above the ground.

To be considered visible, the lamp must provide an unobstructed view of the apparent surface of at least 12.5 square centimetres, except for side direction-indicators of categories 5 and 6. The illuminating surface area of any retro-reflector that does not transmit light shall be excluded."

Paragraphs 6.5.7. and 6.6.7., amend to read:

"..... flash in phase.

On M_1 and N_1 vehicles less than 6 m in length, with an arrangement complying with paragraph 6.5.5.2. above, the amber side-marker lamps, when mounted, shall also flash at the same frequency (in phase) with the direction indicator lamps."

Paragraph 6.7.4.1., amend to read:

"6.7.4.1. In width:

For M category vehicles: For S1 or S2 categories devices that point on the apparent surface in the direction of the reference axis which is farthest from the vehicle's median longitudinal plane shall not be more than 400 mm from the extreme outer edge of the vehicle;
for the distance in between the inner edges of the apparent surfaces in the direction of the reference axes there is no special requirement.

For all other categories of vehicles: For S1 or S2 categories devices the distance in between the inner edges of the apparent surfaces in the direction of the reference axes shall be not less than 600 mm apart. This distance may be reduced to 400 mm if the overall width of the vehicle is less than 1,300 mm.

For S3 category devices: the centre of reference ...."

Paragraphs 6.9.4.1., 6.10.4.1., 6.14.4.1. and 6.16.4.1. amend to read:

"... of the vehicle.

The distance between the inner edges of the two apparent surfaces in the direction of the reference axes shall:

For M category vehicles: have no special requirement;

For all other categories of vehicles: be not less than 600 mm. This distance may be reduced to 400 mm where the overall width of the vehicle is less than 1,300 mm."

Paragraph 6.9.5., related to Front Position Lamp, amend to read:

"6.9.5. Geometric visibility

6.9.5.1. (All words presently in paragraph 6.9.5. would remain and be included here):

6.9.5.2. For M category vehicles, as an alternative to paragraph 6.9.5.1., at the discretion of the manufacturer or his duly accredited representative, and only if a front side marker lamp is installed on the vehicle.

Horizontal angle: 45° outwards to 45° inwards.
Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5° if the lamps are less than 750 mm above the ground.

To be considered visible, the lamp must provide an unobstructed view of the apparent surface of at least 12.5 square centimetres. The illuminating surface area of any retro-reflector that does not transmit light shall be excluded."

Paragraph 6.10.5., related to Rear Position Lamp, amend to read:

"6.10.5. Geometric visibility

6.10.5.1. (All words presently in paragraph 6.10.5. would remain and be included here):

6.10.5.2. For M category vehicles, as an alternative to paragraph 6.10.5.1., at the discretion of the manufacturer or his duly accredited representative, and only if a rear side-marker lamp is installed on the vehicle.

Horizontal angle: 45° outwards to 45° inwards.
Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5° if the lamps are less than 750 mm above the ground.

To be considered visible, the lamp must provide an unobstructed view of the apparent surface of at least 12.5 square centimetres. The illuminating surface area of any retro-reflector that does not transmit light shall be excluded."

Paragraph 6.12.4.2., amend to read:

"6.12.4.2. In height:
For M category vehicles: no special requirement;
For all other categories of vehicles: above the ground, not less than 350 mm nor more than 1,500 mm (2,100 mm if the shape of the bodywork makes it impossible to keep within 1,500 mm)."

Paragraphs 6.14.2., 6.16.2. and 6.17.2., amend the words "Class IA retro-reflectors" to read "Class IA or IB retro-reflectors".

Paragraph 6.14.5., related to Rear Retro-Reflector, Non-Triangular, amend to read:

"6.14.5. Geometric visibility

Horizontal angle: 30° inwards and outwards.
Vertical angle: 10° above and below horizontal. The vertical angle below the horizontal may be reduced to 5° in the case of a retro-reflector less than 750 mm above the ground."

Paragraph 6.16.5., related to Front Retro-Reflector, Non-Triangular, amend to read:

"... with the mandatory retro-reflectors, give the necessary visibility angle.

Vertical angle: 10° above and below horizontal. The vertical angle below the horizontal may be reduced to 5° in the case of a retro-reflector less than 750 mm above the ground."

Paragraph 6.17.4.1., amend to read:

"... measurement of this distance.
The distance between two adjacent side retro-reflectors shall not exceed 3 m. This does not, however, apply to M category vehicles

If the structure of the vehicle ...."

Paragraph 6.17.5., related to Side Retro-Reflector, Non-Triangular, amend to read:

"6.17.5. Geometric visibility

Horizontal angle: 45° to the front and to the rear.
Vertical angle: 10° above and below horizontal. The vertical angle below the horizontal may be reduced to 5° in the case of a retro-reflector less than 750 mm above the ground."

Paragraph 6.18., related to Side-Marker Lamps, amend in the following way:

"6.18.1. Presence

Mandatory: (All words presently in this section would remain);

In addition, on M and N category vehicles less than 6 m in length, side-marker lamps shall be used, if they supplement the reduced geometric visibility requirements of front position lamps conforming to paragraph 6.9.5.2. and rear position lamps conforming to paragraph 6.10.5.2.

Optional: (All words presently in this section would remain);

6.18.2. (No changes)

6.18.3. (No changes)

6.18.4. (No changes)

6.18.5. Geometric visibility

Horizontal angle: (All words presently in this section would remain);

If the vehicle is equipped with side-marker lamps used to supplement the reduced geometric visibility of front and rear direction indicator lamps conforming to paragraph 6.5.5.2. and/or position lamps conforming to paragraphs 6.9.5.2. and 6.10.5.2., the angles are 45° towards the front and rear ends of the vehicle and 30° towards the centre of the vehicle (see the figure in paragraph 6.5.5.2. above).

Vertical angle: 10° above and below the horizontal ..... above the ground.

6.18.6. (No changes)

6.18.7. Electrical connections

On M_1 and N_1 category vehicles less than 6 m in length amber side-marker lamps may be wired to flash, provided that this flashing is in phase and at the same frequency with the direction indicator lamps at the same side of the vehicle.
For all other categories of vehicles: no individual specification.

6.18.8. (No changes)

6.18.9. Other requirements

When the rearmost ... stop lamp.

Rear side-marker lamps must be amber if they flash with the rear direction indicator lamp."

Paragraph 6.19.7., related to Daytime Running Lamps, the first sentence reading "The daytime ..... at the same time." should be deleted.

Paragraph 8., amend to read:

"8. CONFORMITY OF PRODUCTION

The conformity of production procedures shall comply with those set out in the Agreement, Appendix 2 (E/ECE/324-E/ECE/TRANS/505/Rev.2), with the following requirements:"

Paragraph 8.2., should be deleted.

Paragraphs 8.3. and 8.3.1., renumber as paragraphs 8.2. and 8.2.1.

Paragraph 8.3.2., should be deleted.

Paragraph 8.3.3., renumber as paragraph 8.2.2.

Paragraphs 8.3.4. to 8.4.1., should be deleted.

Paragraphs 8.4.2. and 8.5., renumber as paragraphs 8.3. and 8.4.

Paragraphs 12. to 12.4., replace by the following text:

"12. TRANSITIONAL PROVISIONS

12.1. As from the official date of entry into force of the 02 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the 02 series of amendments.

12.2. As from 1 October 2002, Contracting Parties applying this Regulation shall grant ECE approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 02 series of amendments.

12.3. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to preceding series of amendments to this Regulation.

12.4. Until 1 October 2002, Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as amended by the preceding series of amendments.

12.5. ECE approvals granted under this Regulation before 1 October 2002 and all extensions of such approvals, including those to a preceding series of amendments to this Regulation granted subsequently, shall remain valid indefinitely. When the vehicle type approved to the preceding series of amendments meets the requirements of this Regulation as amended by the 02 series of amendments, the Contracting Party which granted the approval shall notify the other Contracting Parties applying this Regulation thereof.

12.6. No Contracting Party applying this Regulation shall refuse national type approval of a vehicle type approved to the 02 series of amendments to this Regulation.

12.7. Until 1 October 2002, no Contracting Party applying this Regulation shall refuse national type approval of a vehicle type approved to the preceding series of amendments to this Regulation.

12.6. From 1 October 2003, Contracting Parties applying this Regulation may refuse first national registration (first entry into service) of a vehicle which does not meet the requirements of the 02 series of amendments to this Regulation.

Annex 2, in the examples of the approval marks and in the captions below amend the approval number "012439" to read "022439" (two times) and the words "01 series of amendments" to read "02 series of amendments" (four times).